

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (original) A method for producing a hard carbon film on a polymeric surface, the method comprising:
  - (a) exposing the surface to a plasma comprising one or more  $\text{SF}_x$  species where  $x$  may range from 1 to 5; and
  - (b) converting the polymeric surface into a film comprising at least about 90 atomic percent carbon.
2. (original) The method of claim 1, wherein the polymeric surface comprises carbon, oxygen and hydrogen atoms.
3. (original) The method of claim 1, wherein the polymeric surface is oxidized.
4. (original) The method of Claim 1, wherein the polymeric surface is converted into a film comprising at least about 95 atomic percent carbon.
5. (original) The method of Claim 1, wherein the surface is exposed to the plasma at a pressure from about 50 to 500 mTorr.
6. (original) The method of Claim 1, wherein the surface is exposed to the plasma at a temperature from about 20 to 100°C.
7. (original) The method of Claim 1, wherein the surface is exposed to the plasma for no more than about 10 minutes.
8. (original) The method of Claim 1, wherein the polymeric surface comprises a polymer selected from the group consisting of poly(acrylic acid), poly(methyl methacrylate) and polycarbonate.

9. (original) The method of Claim 1, wherein the polymeric surface comprises a polymer selected from the group consisting of polyethylene, polypropylene and polystyrene.

10. (original) The method of Claim 1, wherein the polymeric surface is comprised of a polymeric layer disposed on an underlying substrate.

11. (original) The method of Claim 10, wherein the polymeric layer comprises poly(acrylic acid).

12. (original) The method of Claim 1, wherein the polymeric surface is exposed to the plasma for a time sufficient to produce a film comprising no more than about 5 atomic percent oxygen.

13. (original) The method of Claim 1, wherein the polymeric surface is exposed to the plasma for a time sufficient to produce a film comprising no more than about 1 atomic percent hydrogen.

14. (original) The method of Claim 1, wherein the exposure of the polymeric surface to the plasma produces a film comprising no more than about 1 atomic percent fluorine.

15. (original) The method of Claim 1, wherein the plasma is substantially free of oxygen.

16. (original) The method of Claim 1, wherein the plasma is substantially free of hydrocarbon precursors.

17. (original) The method of Claim 1, wherein the polymeric surface is exposed to the plasma for a time sufficient to produce a film having a thickness from about 0.5 to 5 microns.

18-32. (Canceled)

33. (currently amended) A surface-modified substrate comprising:

(a) a polymeric substrate; and

(b) a surface film comprising a cross-linked network of carbon chains, wherein the surface film comprises at least 90 atomic percent carbon, and further ~~The surface-modified substrate of Claim 20,~~ wherein the substrate is window, a medical implant or a lens.

34-36. (Canceled)